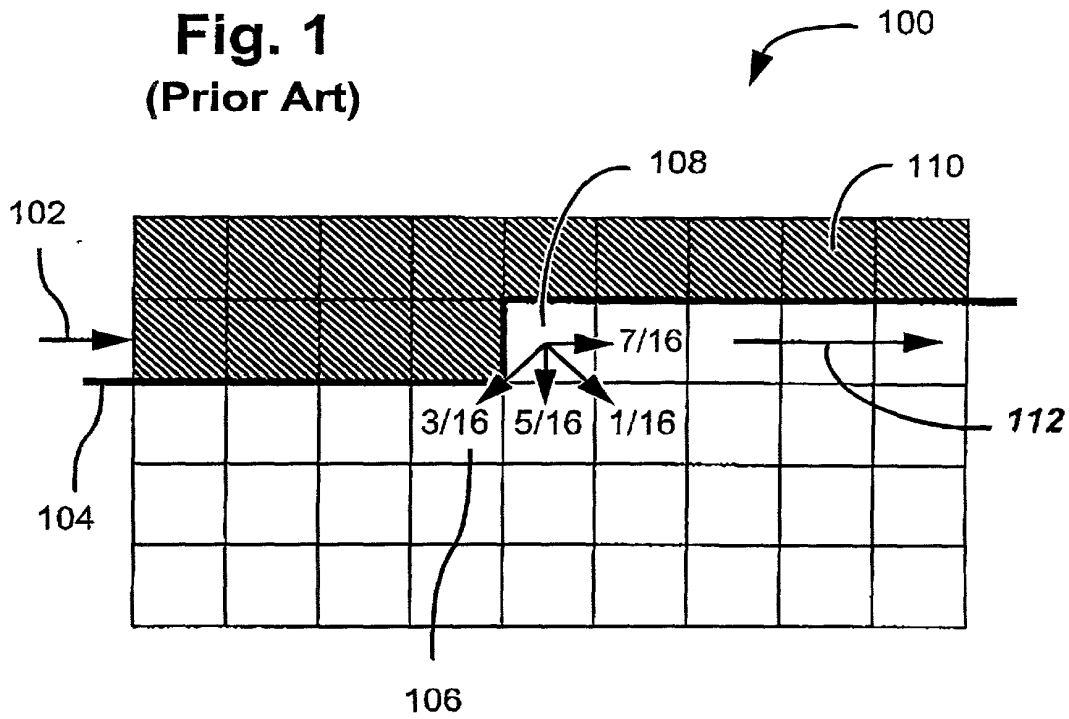
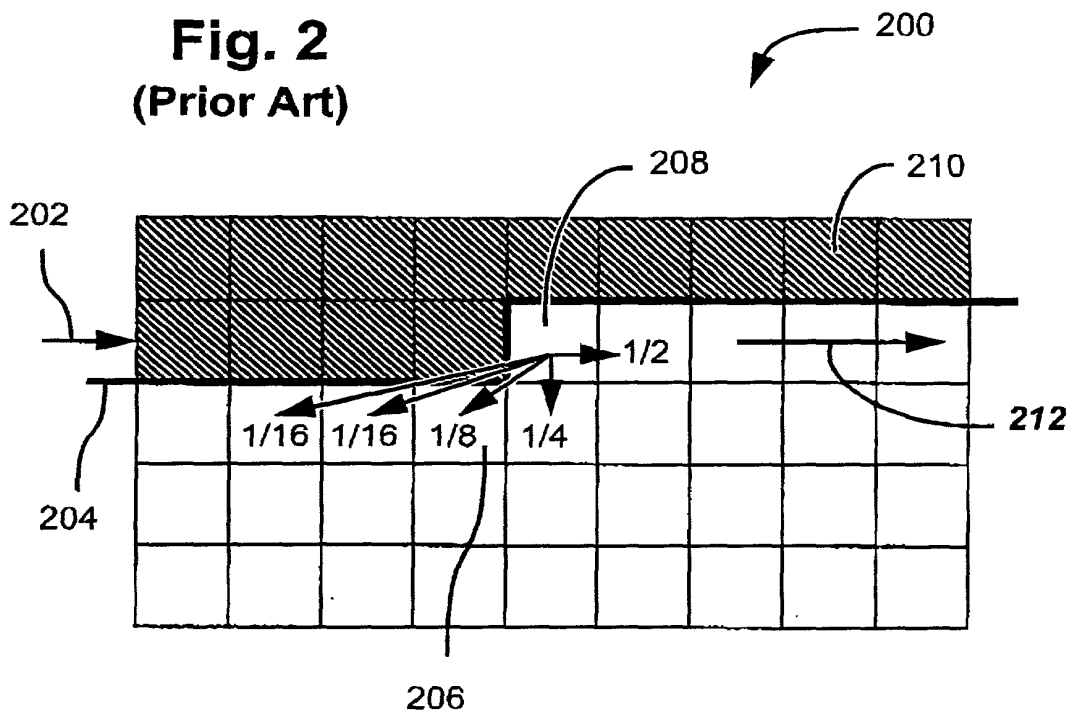


**Fig. 1**  
(Prior Art)



**Fig. 2**  
(Prior Art)





400

mask position	mask weight	mask position	mask weight
n0	0.236962		
n1	0.127126	c1	0.534915
n2	0.048164	c2	-0.080892
n3	0.023072	c3	0.0286
n4	0.013238	c4	0.007557
n5	0.008605	c5	0.003258
n6	0.006122	c6	0.005601
n7	0.004631	c7	0.002344
n8	0.003692	c8	0.002784
n9	0.003043	c9	0.00211
n10	0.002717	c10	0.005269
n11	0.002068	c11	-0.005752
n12	0.003602	c12	0.011165

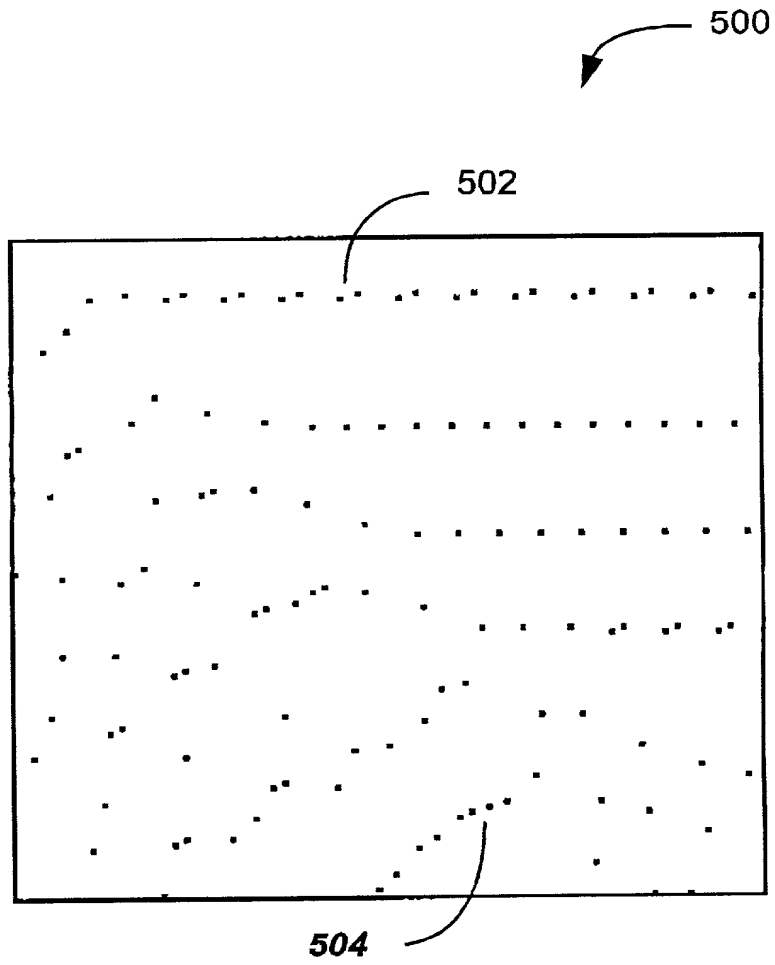
402

404

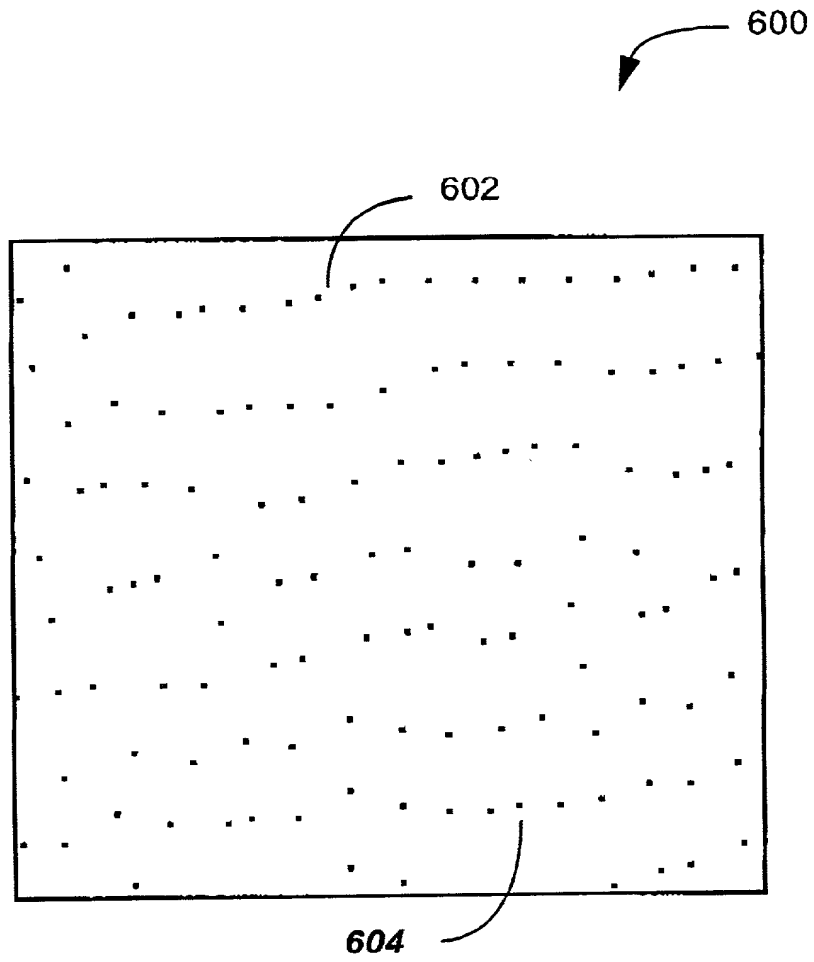
406

408

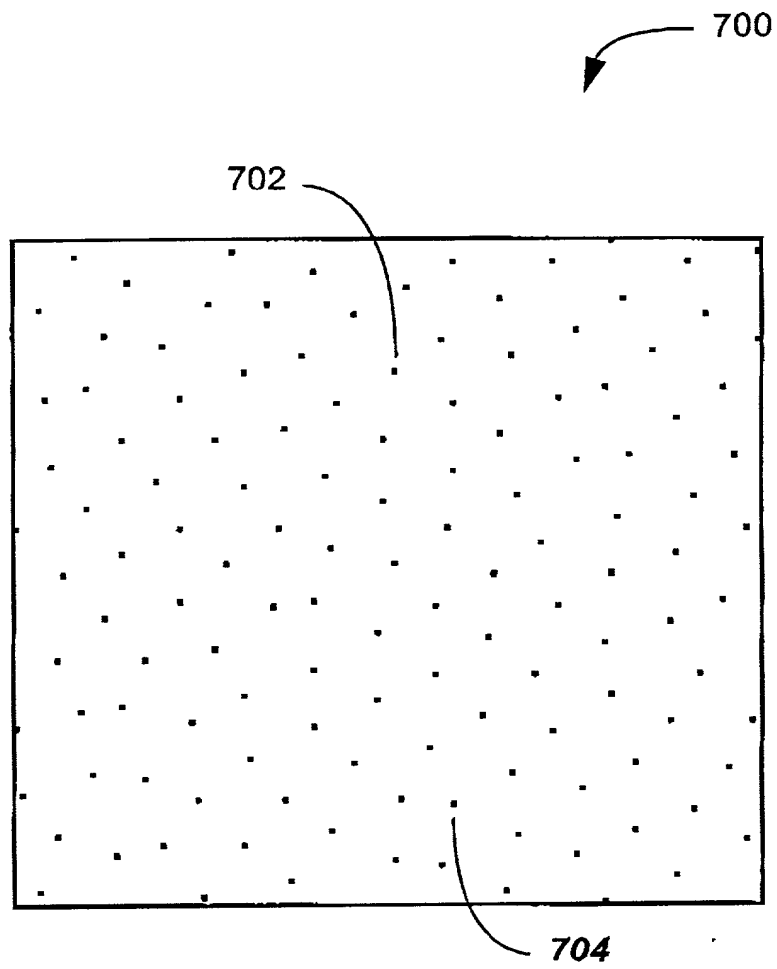
**Fig. 4**

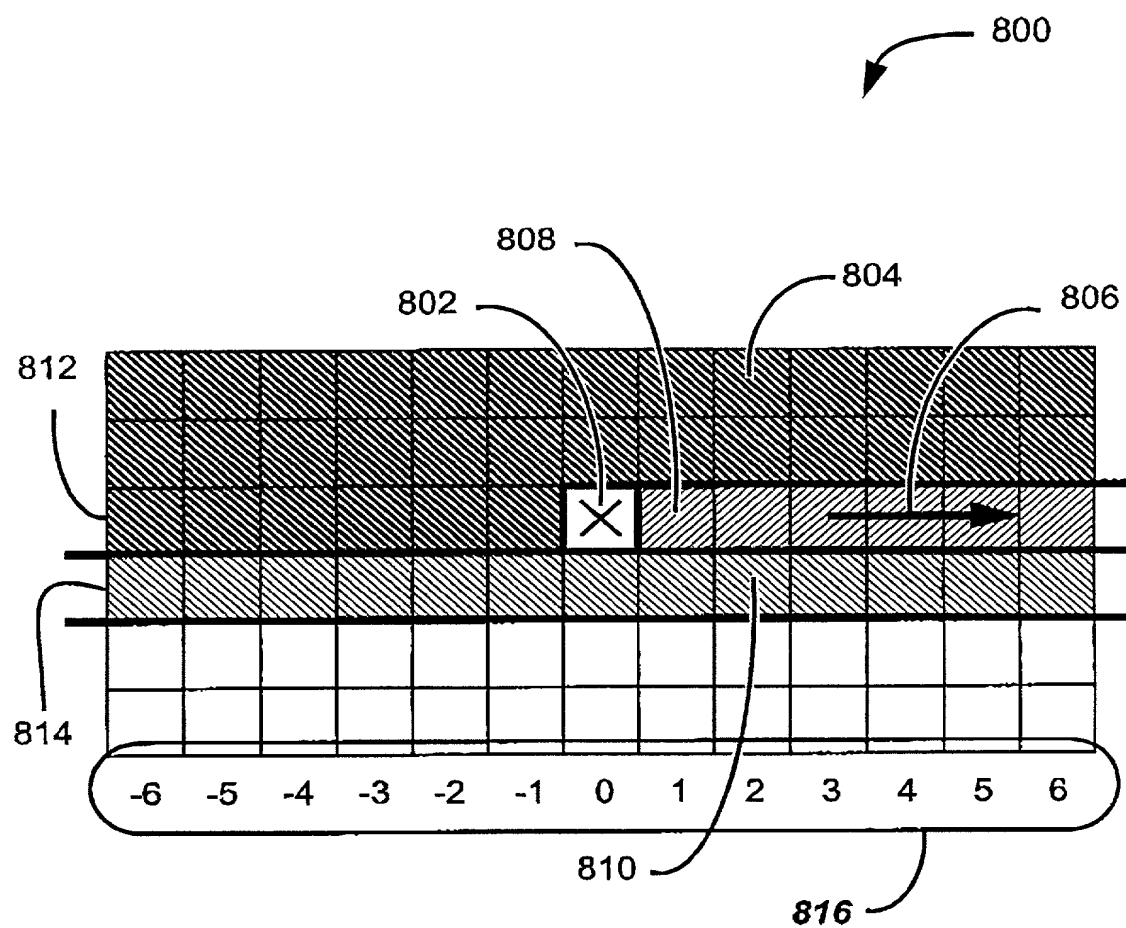


**Fig. 5**  
(Prior Art)



**Fig. 6**  
**(Prior Art)**

**Fig. 7**

**Fig. 8**

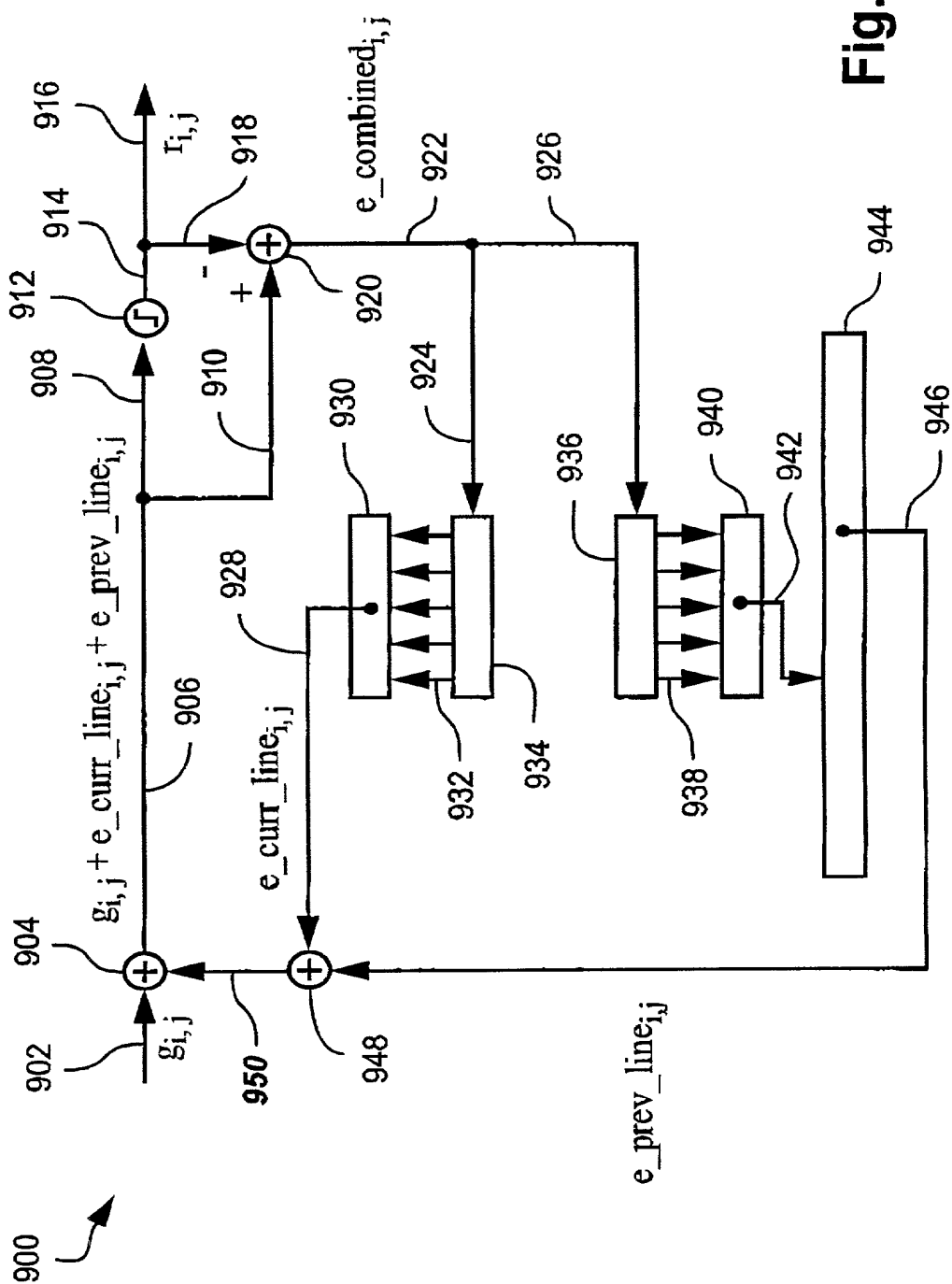


Fig. 9



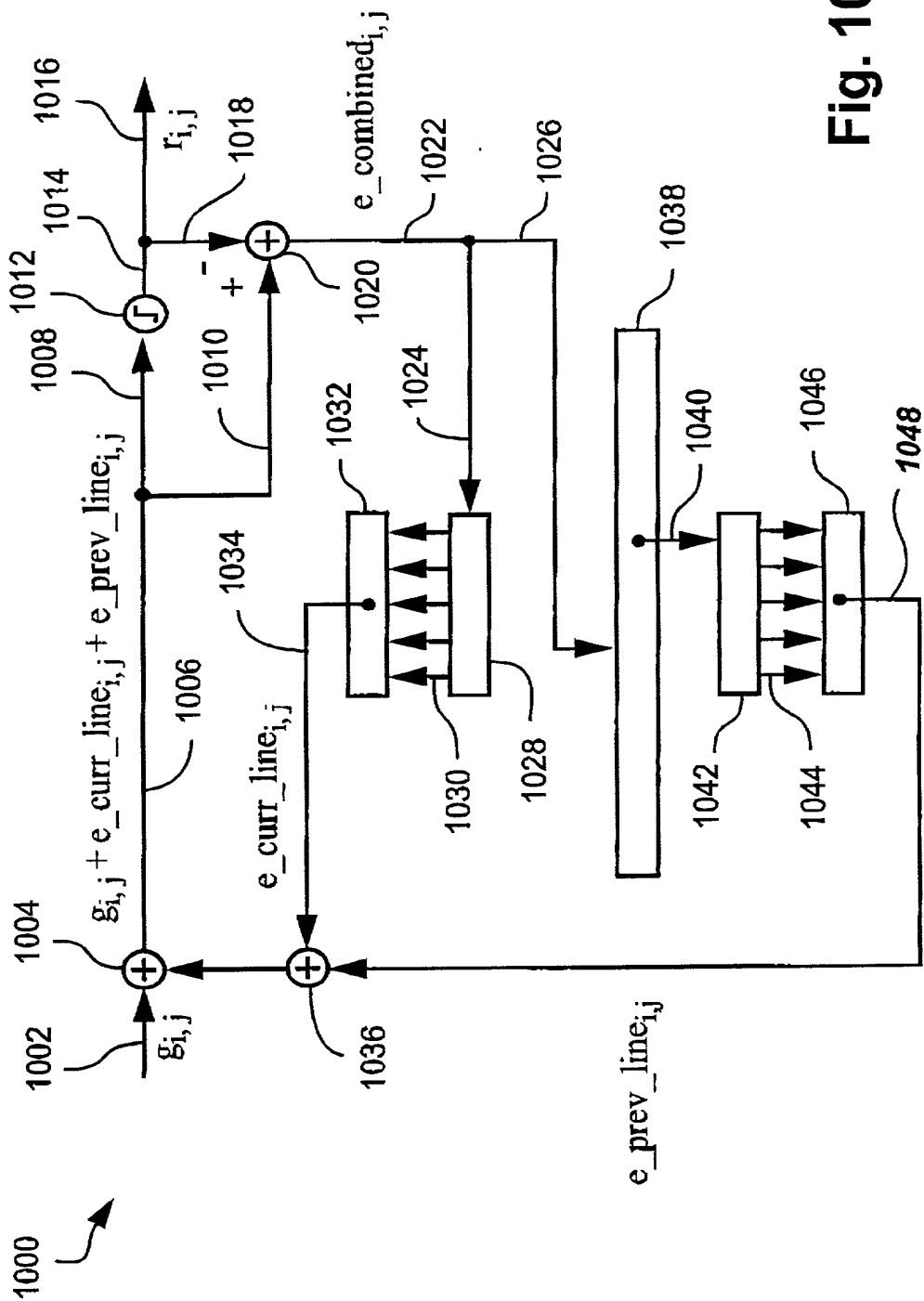


Fig. 10

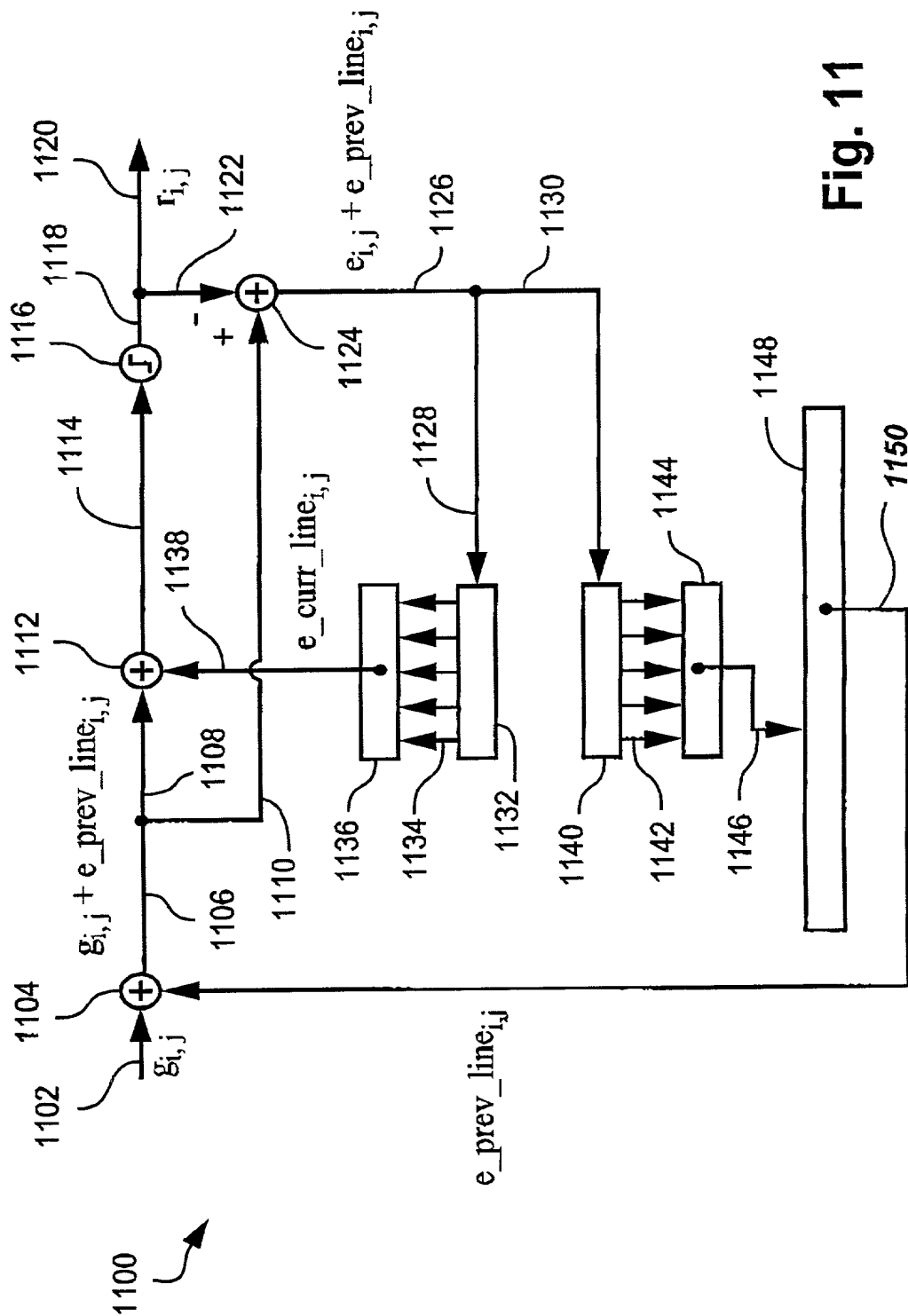


Fig. 11



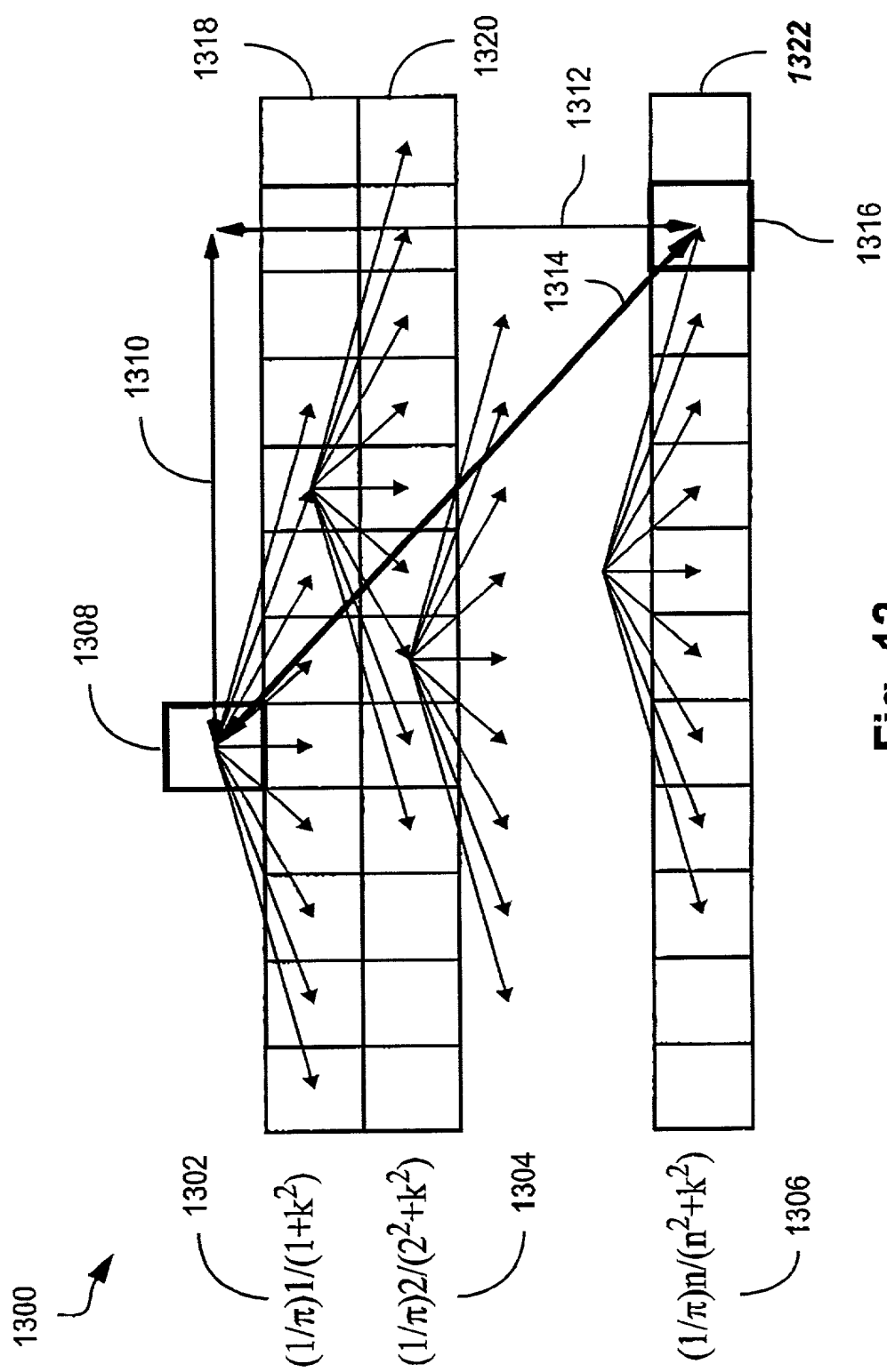


Fig. 13

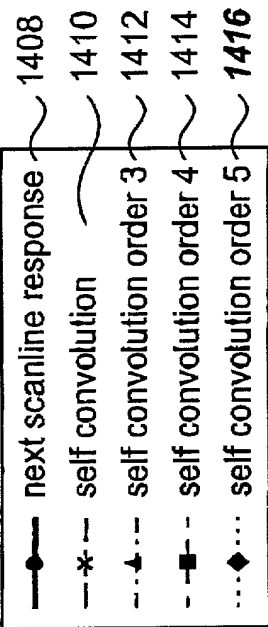
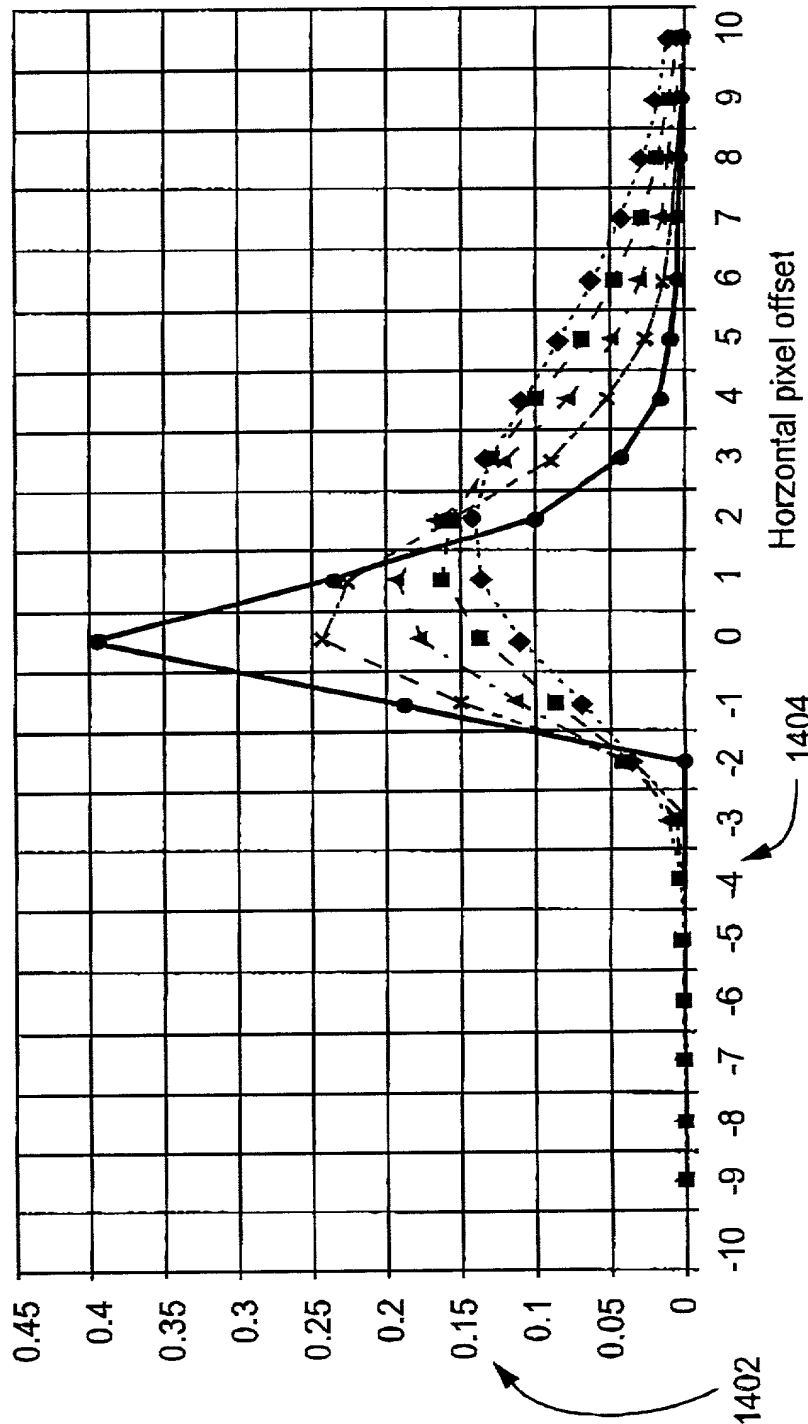
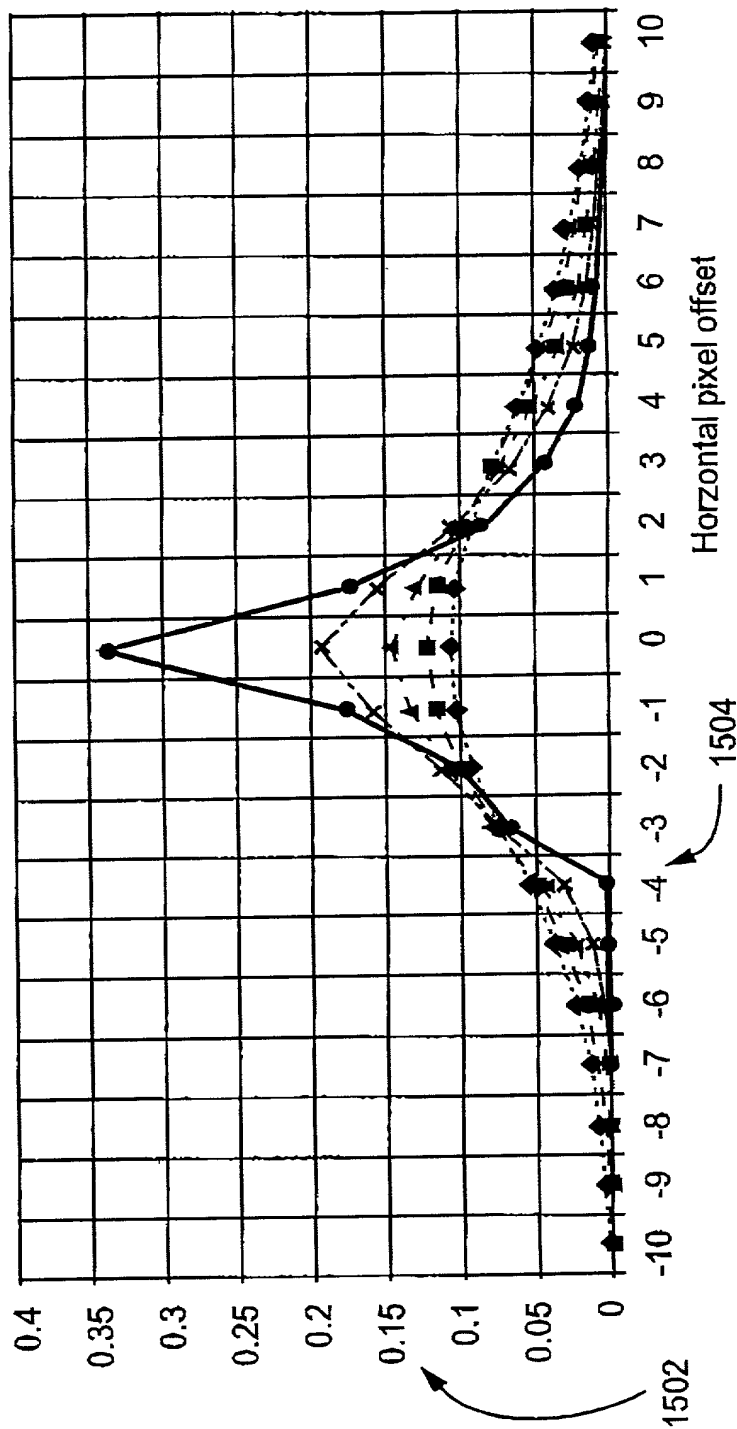


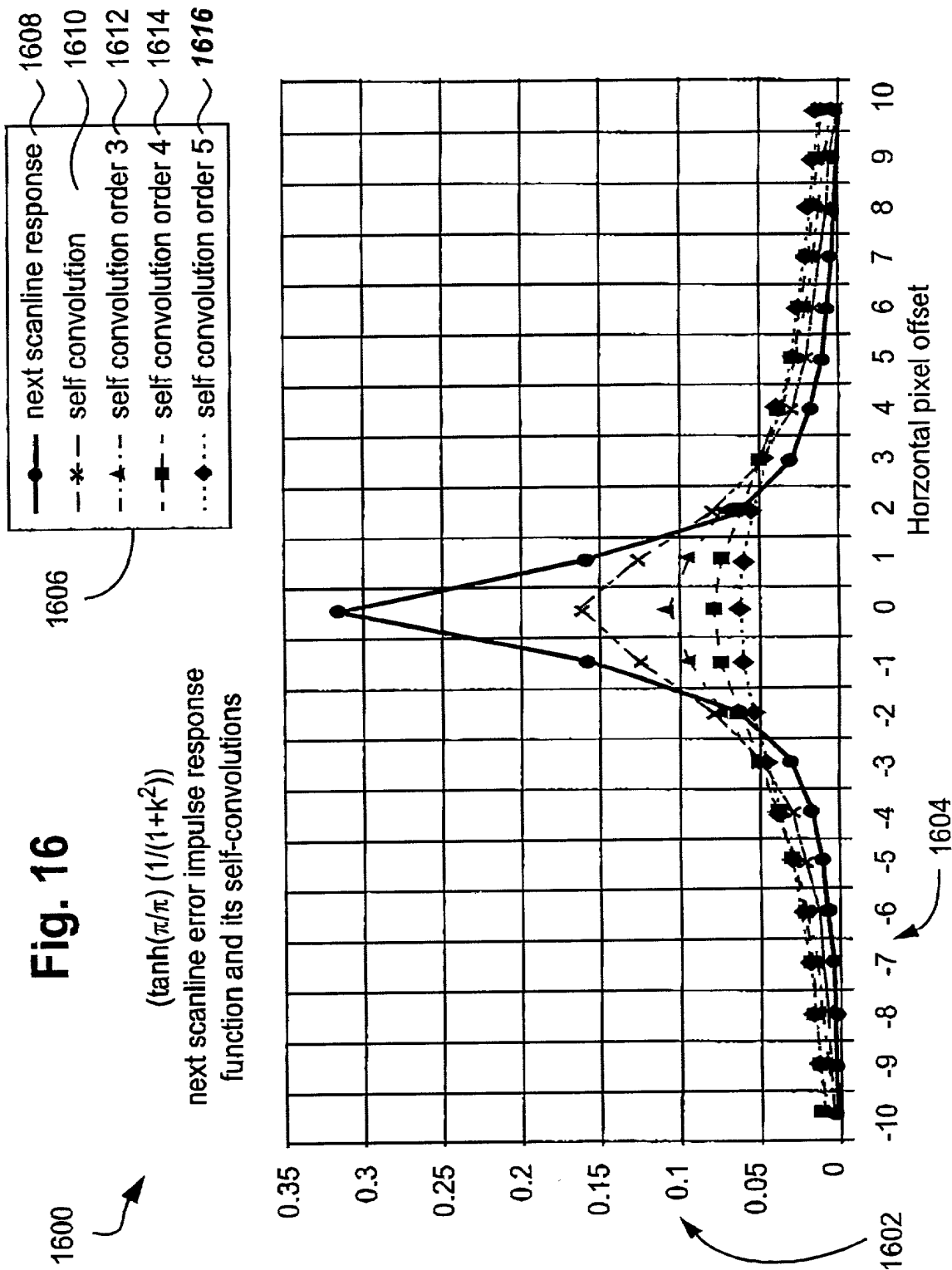
Fig. 14

Floyd Steinberg error diffusion next scanline error impulse response function and its self-convolutions



**Fig. 15**  
 Error diffusion of USP 5,353,127 (Shiau & Fan)  
 (mask:  $1/2, 1/4, 1/8, 1/16, 1/16$ )  
 next scanline error impulse response  
 function and its self-convolutions





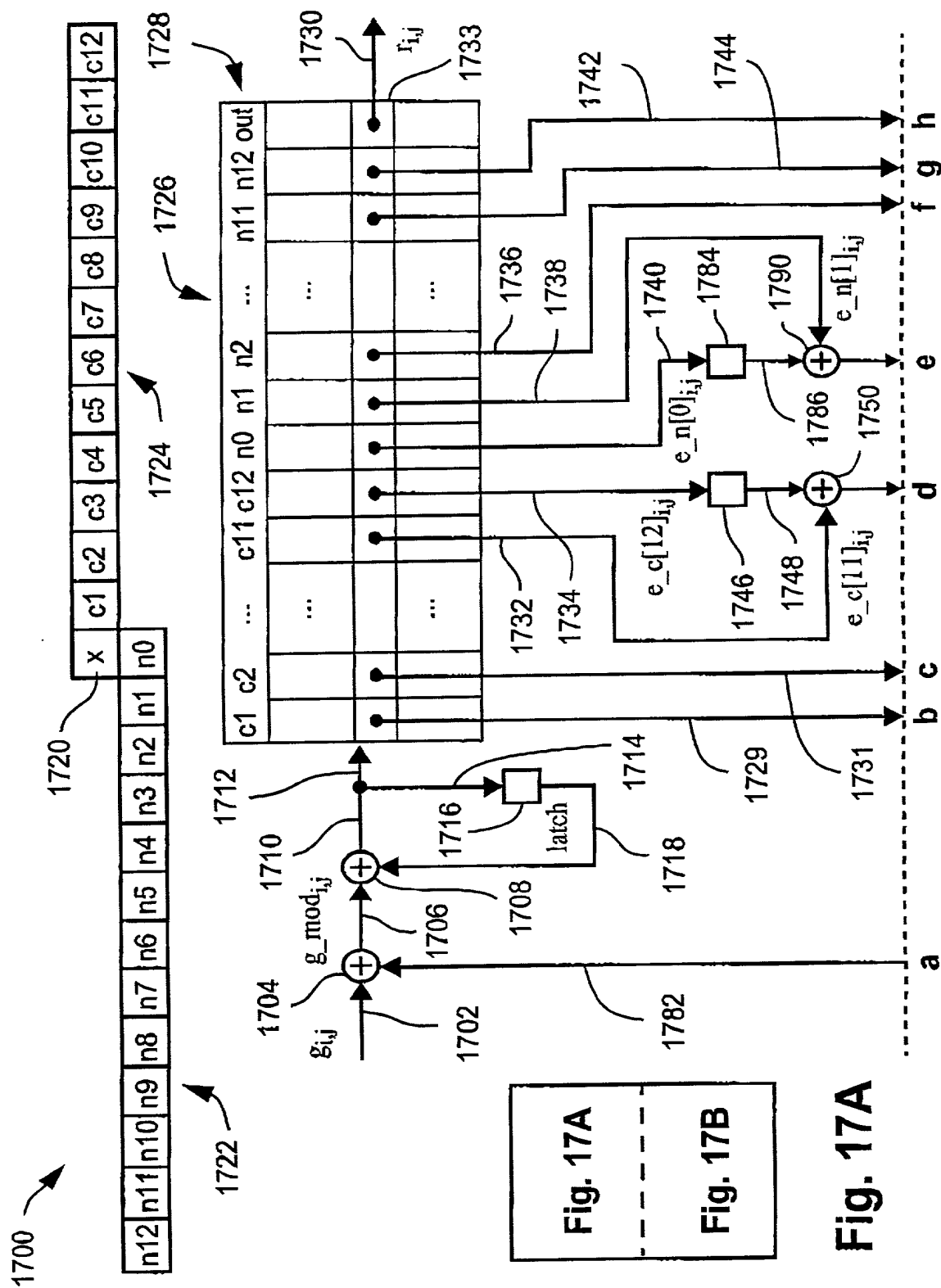


Fig. 17A

Fig. 17B

Fig. 17A



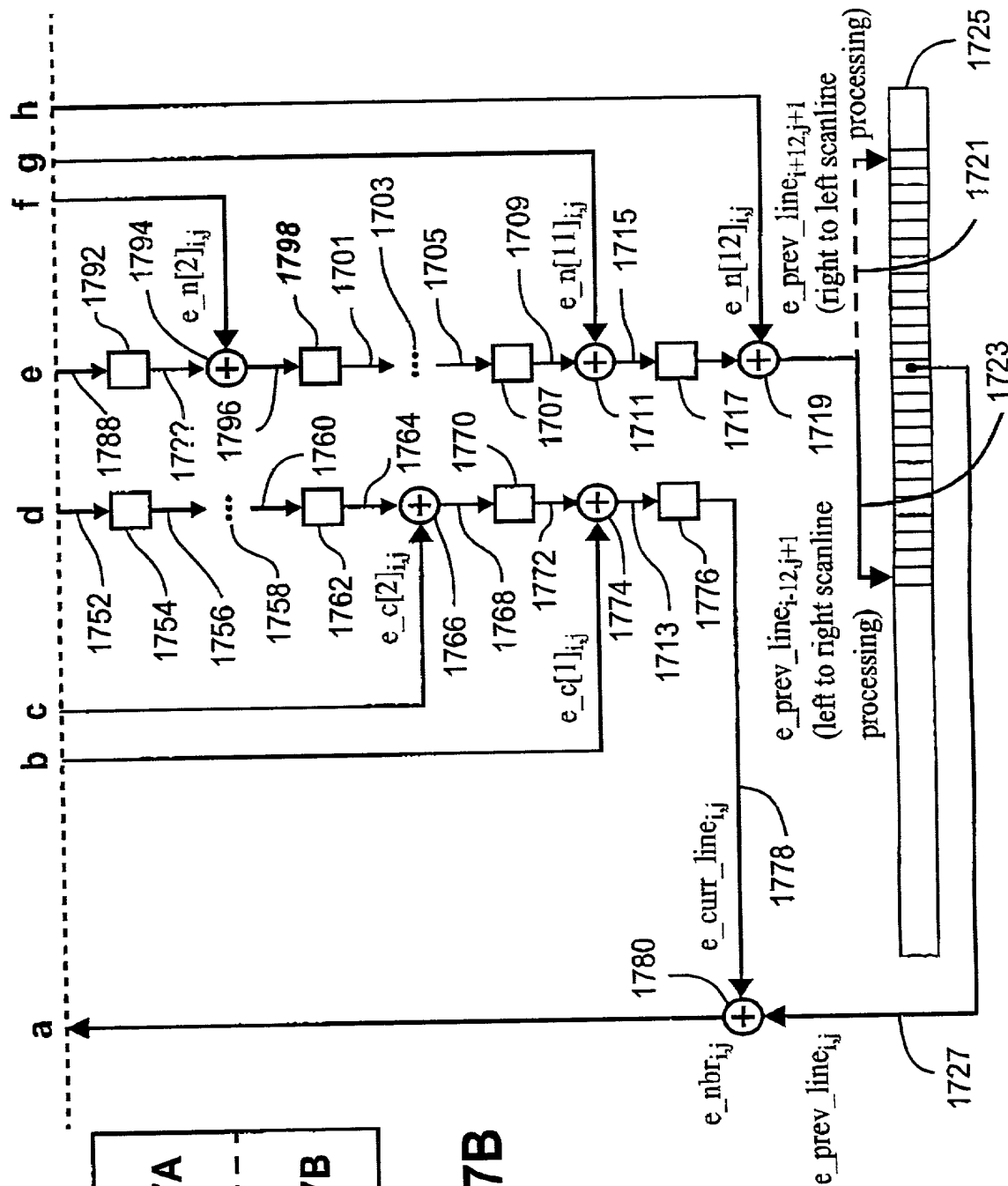


Fig. 17B

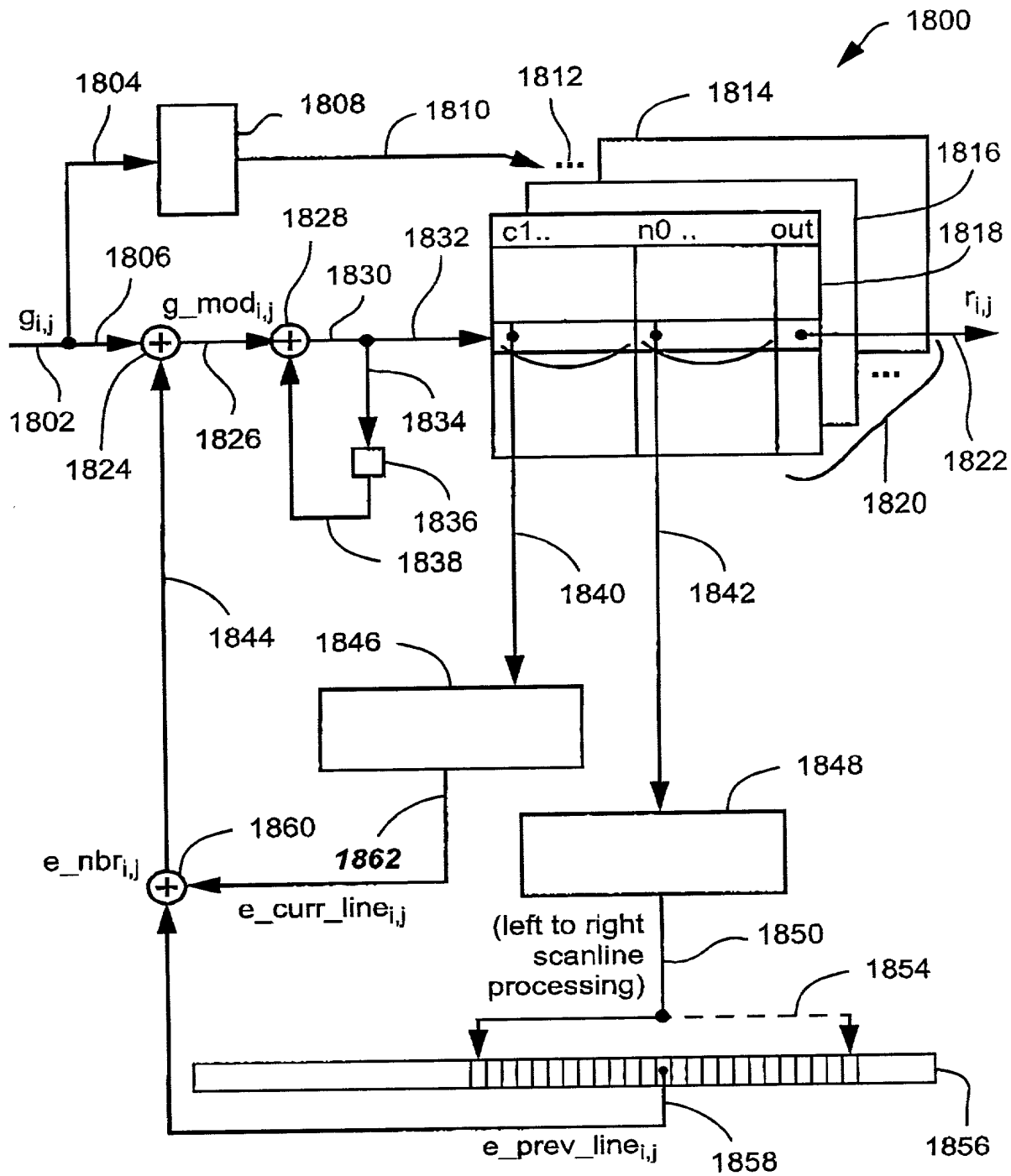


Fig. 18

1900

pixel offset	mask 1	mask 2	mask 3	mask 4	mask 5	mask 6
c1	0.590522	0.474801	0.561741	0.536627	0.538362	0.536667
c2		0.063092	-0.122958	-0.059029	-0.080649	-0.076928
c3			0.099337	-0.006168	0.043546	0.02488
c4				0.057792	-0.01825	0.022132
c5					0.042134	-0.018664
c6						0.034487
c7						
c8						
c9						
c10						
c11						
c12						
n0	0.222974	0.243788	0.236484	0.237737	0.237758	0.237552
n1	0.186504	0.137512	0.132786	0.130425	0.129196	0.128519
n2		0.080808	0.050122	0.051474	0.050109	0.049341
n3			0.042489	0.024984	0.025532	0.024637
n4				0.026159	0.014588	0.014971
n5					0.017672	0.009629
n6						0.012776
n7						
n8						
n9						
n10						
n11						
n12						

1902 1904 1906 1908 1910 1912 1914

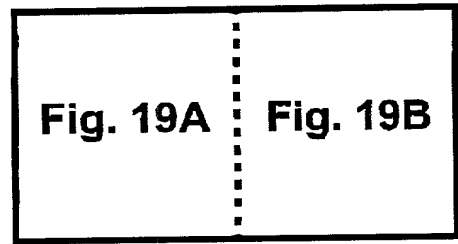


Fig. 19A

1900

mask 7	mask 8	mask 9	mask 10	mask 11	mask 12
0.53547	0.535275	0.535142	0.535113	0.535478	0.534915
-0.07781	-0.077282	-0.080266	-0.080382	-0.08105	-0.080892
0.028431	0.026191	0.029559	0.029124	0.028874	0.0286
0.008507	0.010402	0.008627	0.007733	0.007593	0.007557
0.010482	0.001604	0.002612	0.003383	0.003171	0.003258
-0.010039	0.012859	0.004904	0.005821	0.006146	0.005601
0.025736	-0.010894	0.008603	0.001705	0.00219	0.002344
	0.021552	-0.008178	0.007955	0.002221	0.002784
		0.017524	-0.006994	0.00679	0.00211
			0.01448	-0.006819	0.005269
				0.012944	-0.005752
					0.011165
0.237517	0.237154	0.237201	0.23708	0.236933	0.236962
0.128013	0.127828	0.127623	0.127408	0.127224	0.127126
0.049103	0.048672	0.04855	0.04837	0.048253	0.048164
0.023997	0.023767	0.023463	0.023307	0.02315	0.023072
0.014323	0.013879	0.013715	0.013511	0.013347	0.013238
0.009888	0.009369	0.009058	0.0089	0.008756	0.008605
0.006755	0.00706	0.006642	0.006382	0.006227	0.006122
0.009627	0.004983	0.005251	0.004924	0.004755	0.004631
	0.007582	0.003865	0.004091	0.003857	0.003692
		0.006104	0.003066	0.003254	0.003043
			0.005022	0.002511	0.002717
				0.004195	0.002068
					0.003602

1916

1918

1920

1922

1924

1926

Fig. 19A

Fig. 19B

Fig. 19B

Diagram illustrating a table structure with callouts:

- 2000: Points to the top right corner of the table.
- 2002: Points to the bottom left corner of the table.
- 2004: Points to the bottom right corner of the table.
- 2006: Points to the right side of the table.

mask index	grey levels
1	31-116, 138-224
2	28-30, 225-227, 117, 138
3	25-27, 228-230, 118, 137
4	22-24, 231-233, 119, 136
5	19-21, 234-236, 120, 135
6	16-18, 237-239, 121, 134
7	13-15, 240-242, 122, 133
8	10-12, 243-245, 123, 132
9	7-9, 246-248, 124, 131
10	4-6, 249-251, 125, 130
11	2-3, 252-253, 126, 129
12	0-1, 254-255, 127, 128

**Fig. 20**

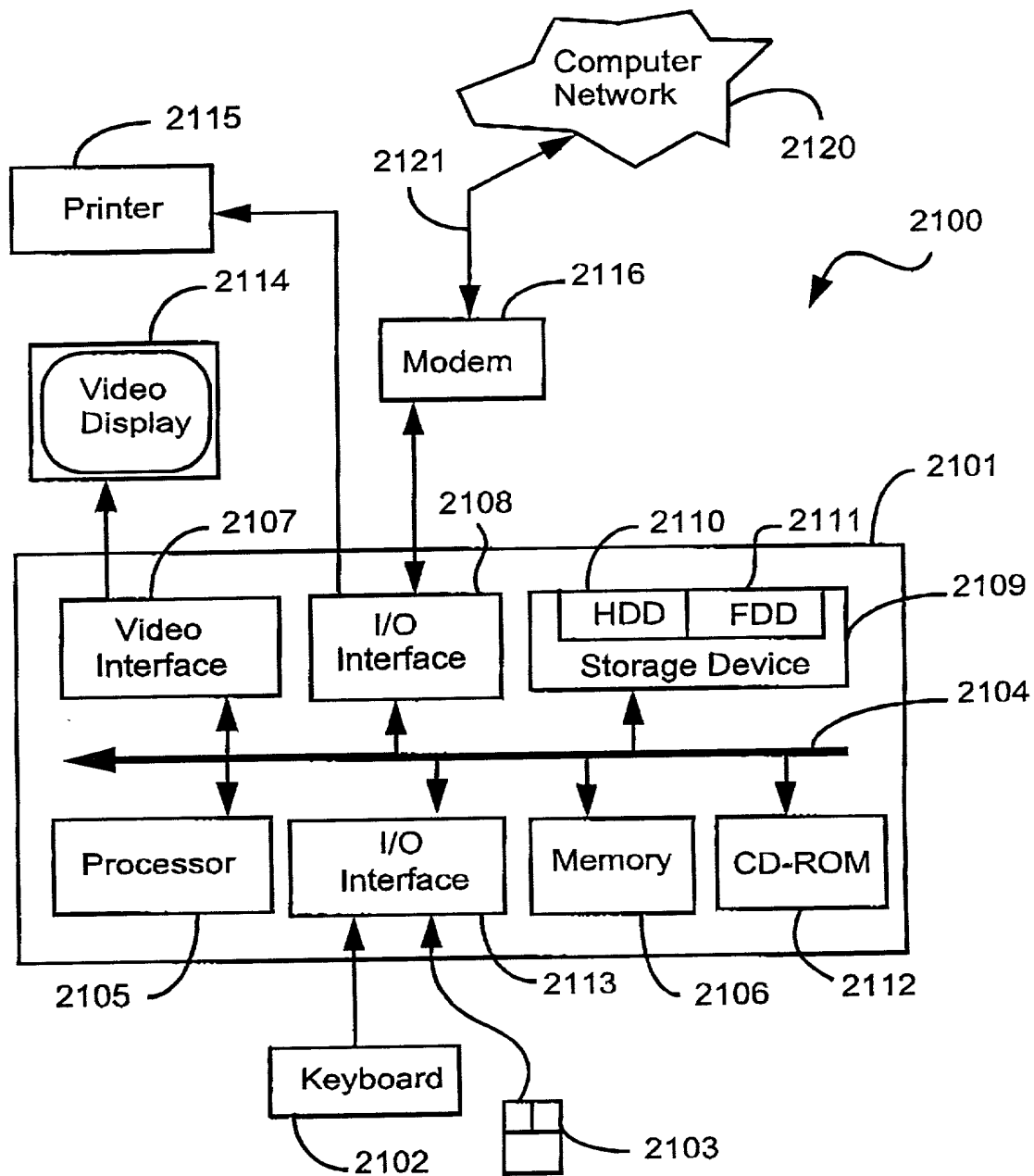


Fig. 21

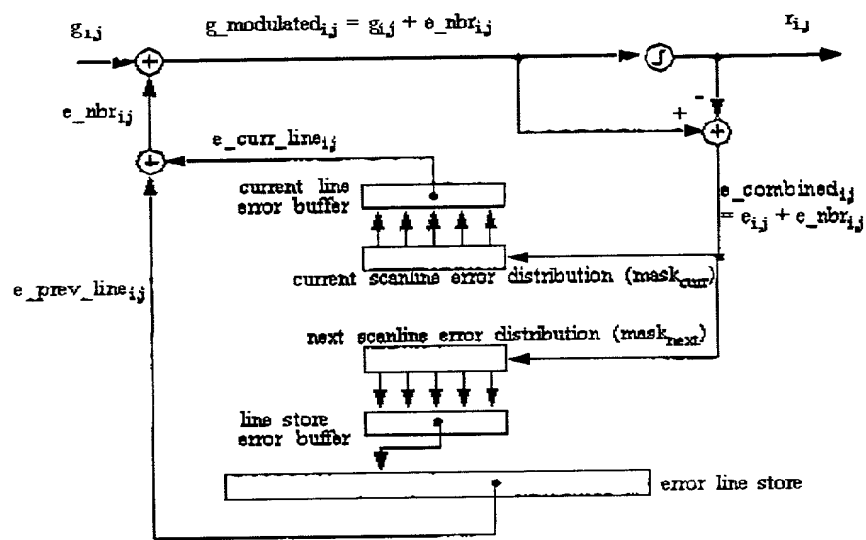


Fig. 22

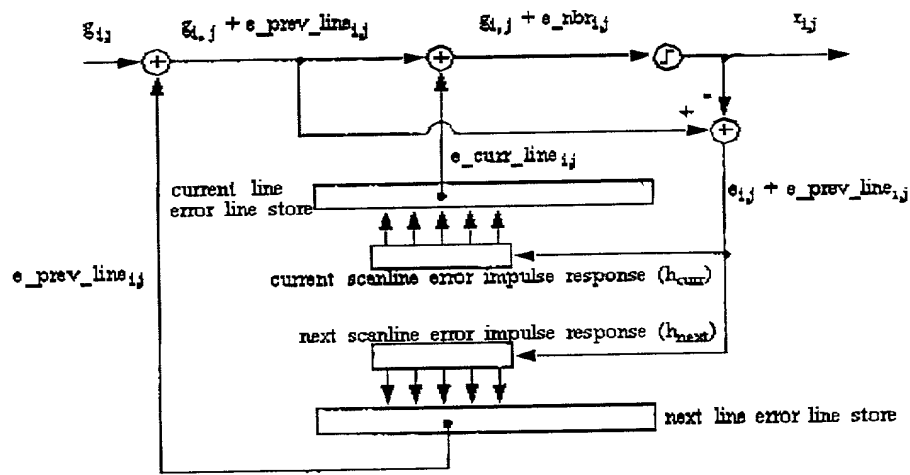


Fig. 23



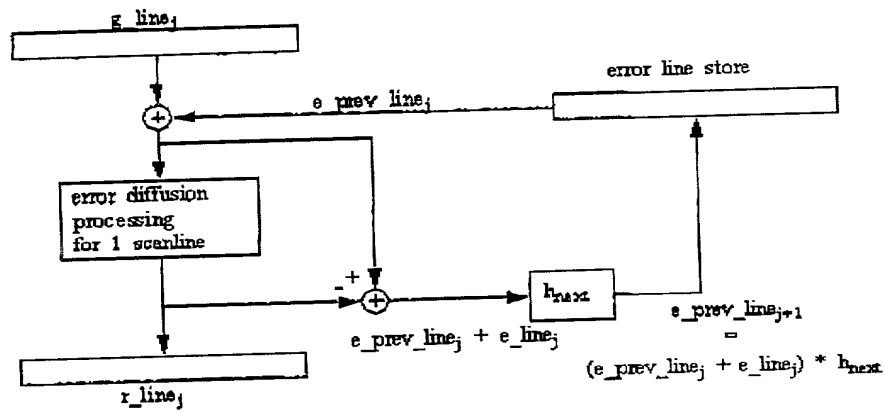


Fig. 24

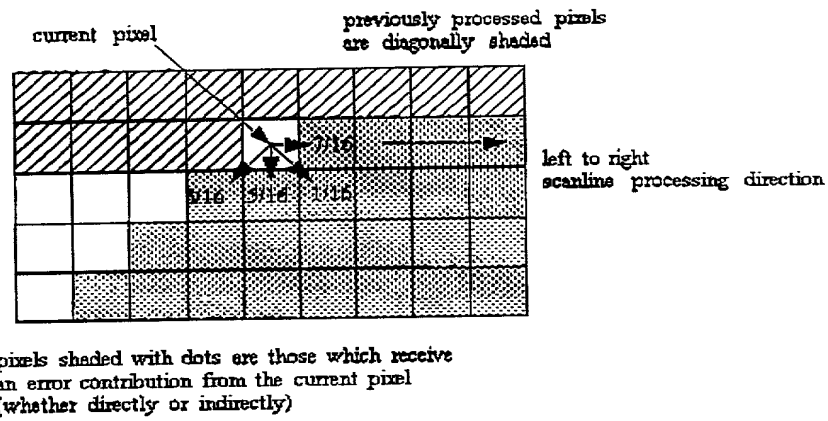


Fig. 25

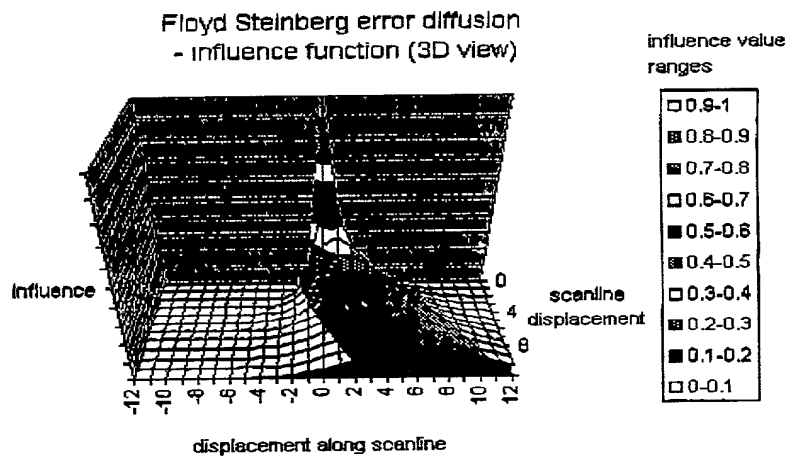


Fig. 26

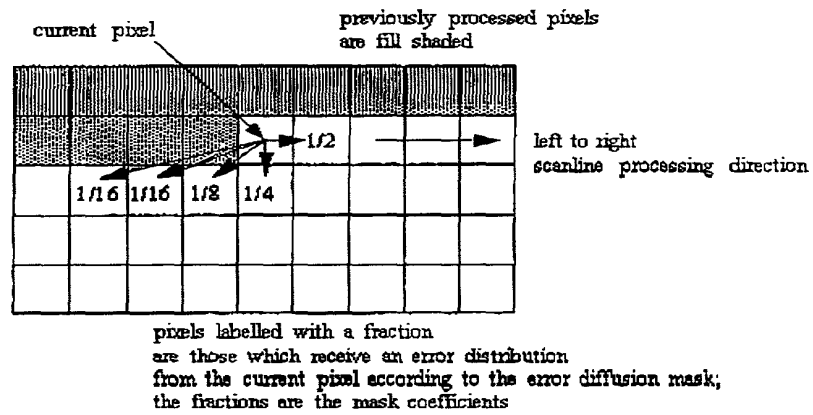
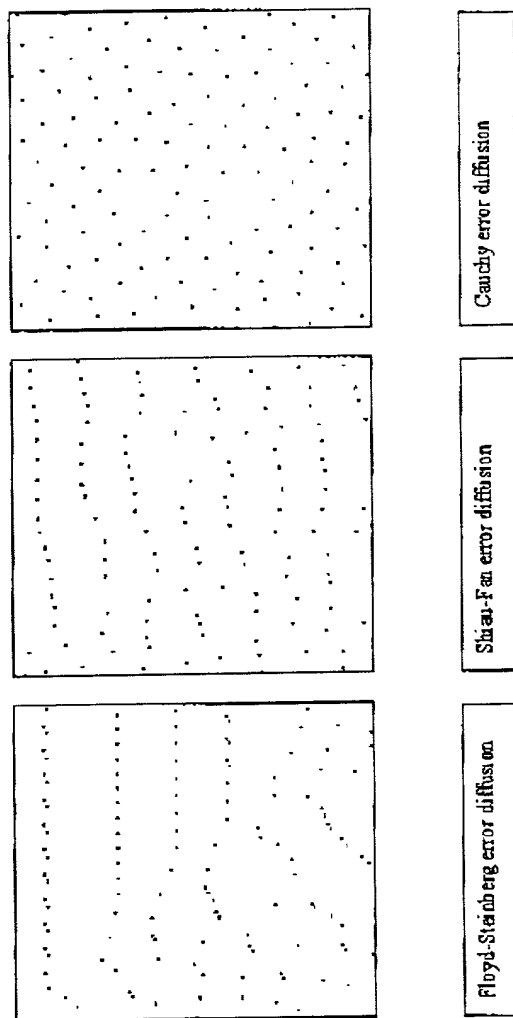


Fig. 27



**Fig. 28**

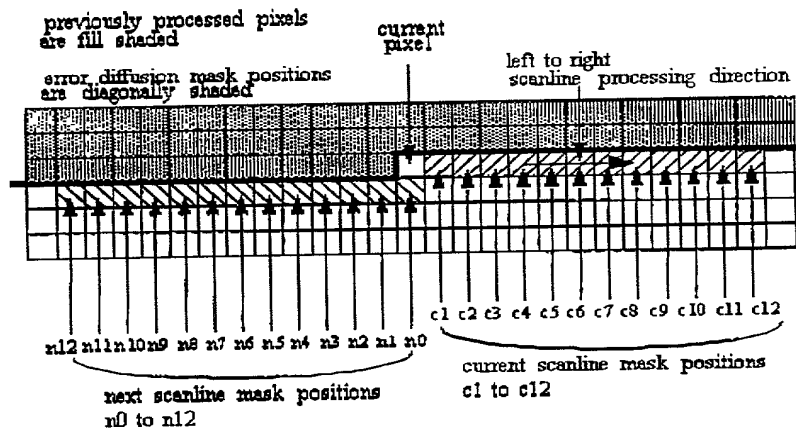
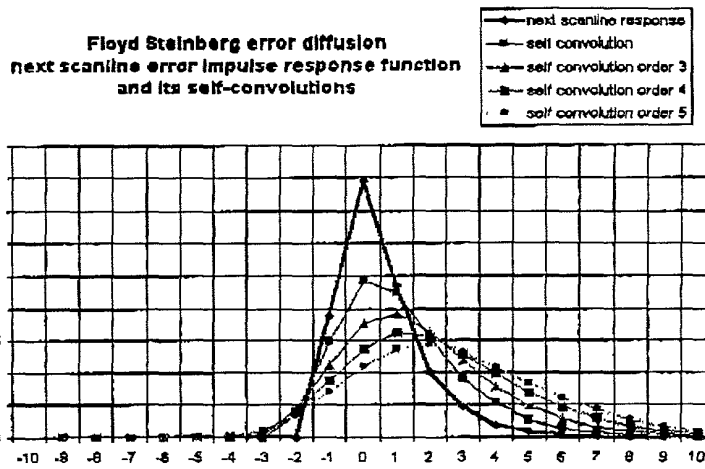


Fig. 29

mask position	mask weight	mask position	mask weight
n0	0.236962		
n1	0.127126	c1	0.534915
n2	0.048164	c2	-0.080892
n3	0.023072	c3	0.0286
n4	0.013238	c4	0.007557
n5	0.008605	c5	0.003258
n6	0.006122	c6	0.005601
n7	0.004631	c7	0.002344
n8	0.003692	c8	0.002784
n9	0.003043	c9	0.00211
n10	0.002717	c10	0.005269
n11	0.002068	c11	-0.005752
n12	0.003602	c12	0.011165

Fig. 30

**Fig. 31**



Error diffusion of USP 5,353,127 (Shiau & Fan)  
(mask: 1/2, 1/4, 1/8, 1/16, 1/16)  
next scanline error impulse response function  
and its self-convolutions

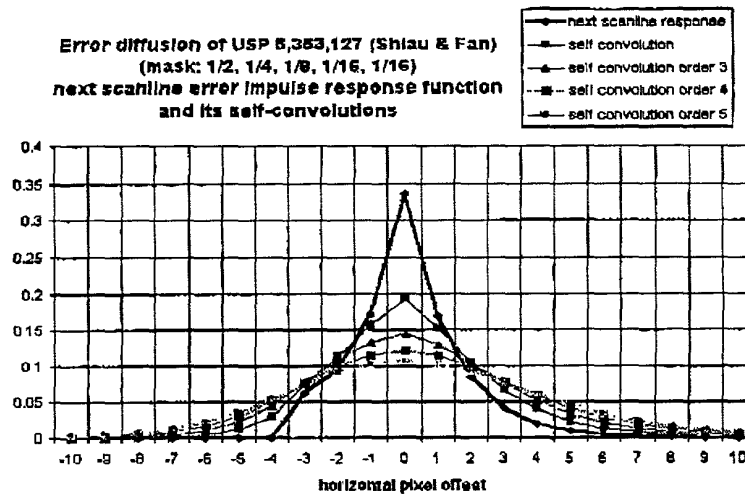
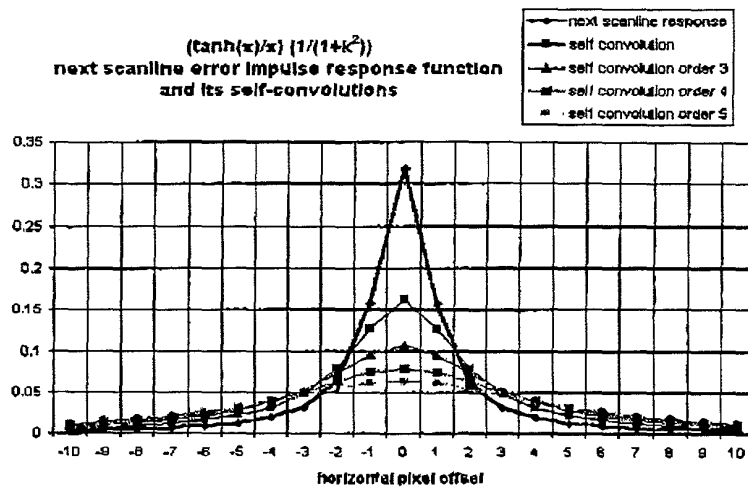


Fig. 32

$(\tanh(\pi/x) / (1+k^2))$   
 next scanline error impulse response function  
 and its self-convolutions



**Fig. 33**

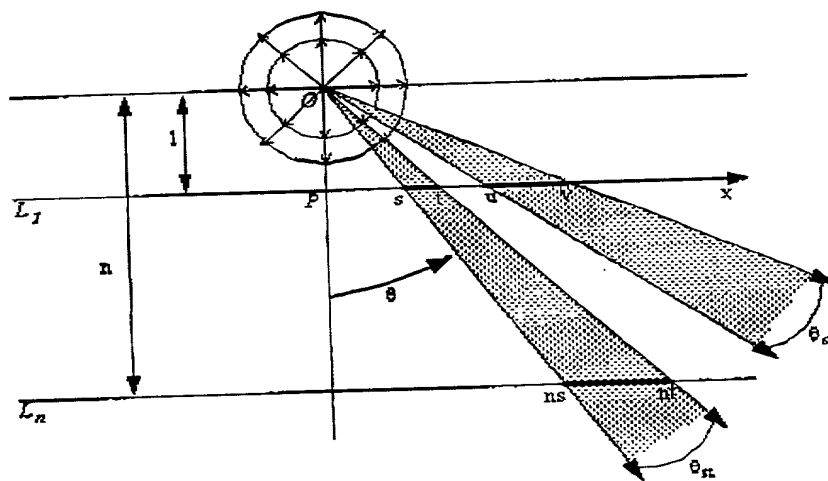


Fig. 34

pixel offset	mask 1	mask 2	mask 3	mask 4	mask 5	mask 6	mask 7	mask 8	mask 9	mask 10	mask 11	mask 12
c1	0.590522	0.474801	0.561741	0.536627	0.538362	0.536667	0.53547	0.535275	0.533142	0.535113	0.535478	0.534915
c2		0.063092	-0.122958	-0.059029	-0.080649	-0.076928	-0.07781	-0.077282	-0.080266	-0.080382	-0.08105	-0.080692
c3			0.099337	-0.006169	0.043546	0.02488	0.028431	0.026191	0.029559	0.029124	0.028874	0.0286
c4				0.057792	-0.01825	0.022132	0.008507	0.010402	0.008627	0.007733	0.007593	0.007557
c5					0.042134	-0.018664	0.010482	0.001604	0.002612	0.003383	0.003171	0.003259
c6						0.024487	-0.010039	0.012859	0.004904	0.005821	0.006146	0.005601
c7							0.025736	-0.010894	0.006603	0.001703	0.00219	0.002344
c8								0.021552	-0.008178	0.007955	0.002221	0.002784
c9									0.017524	-0.006994	0.00679	0.00211
c10										0.01448	-0.006819	0.005269
c11											0.012944	-0.003752
c12												0.011165
m0	0.222974	0.243788	0.236484	0.237737	0.237758	0.237552	0.237517	0.237154	0.237201	0.23708	0.236933	0.236962
m1	0.186504	0.137512	0.132786	0.130425	0.129196	0.128510	0.128013	0.127828	0.127623	0.127408	0.127224	0.127126
m2		0.080808	0.050122	0.051474	0.050109	0.049341	0.049103	0.048672	0.04835	0.04837	0.048253	0.048164
m3			0.042489	0.024984	0.025532	0.024637	0.023997	0.023767	0.023483	0.023307	0.02315	0.023072
m4				0.026159	0.014588	0.014971	0.014323	0.013879	0.013715	0.013511	0.013347	0.013238
m5					0.017672	0.009629	0.009888	0.009369	0.009058	0.0089	0.008756	0.008605
m6						0.012776	0.006755	0.00706	0.006642	0.006382	0.006227	0.006122
m7							0.006627	0.004983	0.005251	0.004924	0.004755	0.004631
m8								0.007582	0.003865	0.004091	0.003857	0.003692
m9									0.006104	0.003066	0.003254	0.003043
m10										0.005022	0.002511	0.002717
m11											0.004195	0.002068
m12												0.003602

Fig. 35

mask index	grey levels
1	31-116, 138-224
2	28-30, 225-227, 117, 138
3	25-27, 228-230, 118, 137
4	22-24, 231-233, 119, 136
5	19-21, 234-236, 120, 135
6	16-18, 237-239, 121, 134
7	13-15, 240-242, 122, 133
8	10-12, 243-245, 123, 132
9	7-9, 246-248, 124, 131
10	4-6, 249-251, 125, 130
11	2-3, 252-253, 126, 129
12	0-1, 254-255, 127, 128

**Fig. 36**